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W1107-20005.prj 081203.ST25.txt
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                   Kevin J.
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Artificial Sequence

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1 5 10 15
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<211> 1170

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Ile Phe Glu Leu Thr Gly Ala Ala Arg Lys Gly Ser Gly Arg Arg Leu 35 40 45

Val Lys Gly Pro Asp Pro Ser Ser Pro Ala Phe Arg Ile Glu Asp Ala 50 60

Asn Leu Ile Pro Pro Val Pro Asp Asp Lys Phe Gln Asp Leu Val Asp 65 70 75 80

Ala Val Arg Ala Glu Lys Gly Phe Leu Leu Leu Ala Ser Leu Arg Gln 85 90 95

Met Lys Lys Thr Arg Gly Thr Leu Leu Ala Leu Glu Arg Lys Asp His 100 105 110

Ser Gly Gln Val Phe Ser Val Val Ser Asn Gly Lys Ala Gly Thr Leu 115 120 125

Asp Leu Ser Leu Thr Val Gln Gly Lys Gln His Val Val Ser Val Glu 130 135 140

Glu Ala Leu Leu Ala Thr Gly Gln Trp Lys Ser Ile Thr Leu Phe Val 145 150 155 160

Gln Glu Asp Arg Ala Gln Leu Tyr Ile Asp Cys Glu Lys Met Glu Asn 165 170 175

Ala Glu Leu Asp Val Pro Ile Gln Ser Val Phe Thr Arg Asp Leu Ala 180 185 190

Ser Ile Ala Arg Leu Arg Ile Ala Lys Gly Gly Val Asn Asp Asn Phe Page 10

Gln Gly Val Leu Gln Asn Val Arg Phe Val Phe Gly Thr Thr Pro Glu 210 215 220 Asp Ile Leu Arg Asn Lys Gly Cys Ser Ser Ser Thr Ser Val Leu Leu 225 230 235 . 240 Thr Leu Asp Asn Asn Val Val Asn Gly Ser Ser Pro Ala Ile Arg Thr 245 250 255 Asn Tyr Ile Gly His Lys Thr Lys Asp Leu Gln Ala Ile Cys Gly Ile 260 265 270 Ser Cys Asp Glu Leu Ser Ser Met Val Leu Glu Leu Arg Gly Leu Arg 275 280 285 Thr Ile Val Thr Thr Leu Gln Asp Ser Ile Arg Lys Val Thr Glu Glu 290 295 300 Asn Lys Glu Leu Ala Asn Glu Leu Arg Arg Pro Pro Leu Cys Tyr His 305 310 315 320 Asn Gly Val Gln Tyr Arg Asn Asn Glu Glu Trp Thr Val Asp Ser Cys 325 330 335 Thr Glu Cys His Cys Gln Asn Ser Val Thr Ile Cys Lys Lys Val Ser 340 350 Cys Pro Ile Met Pro Cys Ser Asn Ala Thr Val Pro Asp Gly Glu Cys 355 360 365 Cys Pro Arg Cys Trp Pro Ser Asp Ser Ala Asp Asp Gly Trp Ser Pro 370 375 380 Trp Ser Glu Trp Thr Ser Cys Ser Thr Ser Cys Gly Asn Gly Ile Gln 385 390 395 400 Gln Arg Gly Arg Ser Cys Asp Ser Leu Asn Asn Arg Cys Glu Gly Ser 405 410 415 Ser Val Gln Thr Arg Thr Cys His Ile Gln Glu Cys Asp Lys Arg Phe 420 425 430 Lys Gln Asp Gly Gly Trp Ser His Trp Ser Pro Trp Ser Ser Cys Ser 435 440 445

W1107-20005.prj 081203.ST25.txt
Val Thr Cys Gly Asp Gly Val Ile Thr Arg Ile Arg Leu Cys Asn Ser
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530 540 Asp Cys Pro Ile Asp Gly Cys Leu Ser Asn Pro Cys Phe Ala Gly Val 545 550 555 560 Lys Cys Thr Ser Tyr Pro Asp Gly Ser Trp Lys Cys Gly Ala Cys Pro 565 570 575 Pro Gly Tyr Ser Gly Asn Gly Ile Gln Cys Thr Asp Val Asp Glu Cys 580 585 590 Lys Glu Val Pro Asp Ala Cys Phe Asn His Asn Gly Glu His Arg Cys. 595 600 605 Glu Asn Thr Asp Pro Gly Tyr Asn Cys Leu Pro Cys Pro Pro Arg Phe 610 620 610 Thr Gly Ser Gln Pro Phe Gly Gln Gly Val Glu His Ala Thr Ala Asn 625 Lys Gln Val Cys Lys Pro Arg Asn Pro Cys Thr Asp Gly Thr His Asp 645 650 655 Cys Asn Lys Asn Ala Lys Cys Asn Tyr Leu Gly His Tyr Ser Asp Pro 660 665 670 Met Tyr Arg Cys Glu Cys Lys Pro Gly Tyr Ala Gly Asn Gly Ile Ile 675 680 685 Cys Gly Glu Asp Thr Asp Leu Asp Gly Trp Pro Asn Glu Asn Leu Val 690 695 700

Cys Val Ala Asn Ala Thr Tyr His Cys Lys Lys Asp Asn Cys Pro Asn 705 710 715 720 Leu Pro Asn Ser Gly Gln Glu Asp Tyr Asp Lys Asp Gly Ile Gly Asp 725 730 735 Ala Cys Asp Asp Asp Asp Asp Asp Asp Lys Ile Pro Asp Asp Asp Asp 740 745 750 Asn Cys Pro Phe His Tyr Asn Pro Ala Gln Tyr Asp Tyr Asp Arg Asp 765 765 Asp Val Gly Asp Arg Cys Asp Asn Cys Pro Tyr Asn His Asn Pro Asp 770 775 780 Gln Ala Asp Thr Asp Asn Asn Gly Glu Gly Asp Ala Cys Ala Ala Asp 785 790 795 800 lle Asp Gly Asp Gly Ile Leu Asn Glu Arg Asp Asn Cys Gln Tyr Val 805 810 815 Tyr Asn Val Asp Gln Arg Asp Thr Asp Met Asp Gly Val Gly Asp Gln 820 825 830 Cys Asp Asn Cys Pro Leu Glu His Asn Pro Asp Gln Leu Asp Ser Asp 845 Ser Asp Arg Ile Gly Asp Thr Cys Asp Asn Asn Gln Asp Ile Asp Glu 850 855 860 Asp Gly His Gln Asn Asn Leu Asp Asn Cys Pro Tyr Val Pro Asn Ala 865 870 875 880 Asn Gln Ala Asp His Asp Lys Asp Gly Lys Gly Asp Ala Cys Asp His 885 890 895 Asp Asp Asp Asn Asp Gly Ile Pro Asp Asp Lys Asp Asn Cys Arg Leu 900 905 910 Val Pro Asn Pro Asp Gln Lys Asp Ser Asp Gly Asp Gly Asp 915 920 925 Ala Cys Lys Asp Asp Phe Asp His Asp Ser Val Pro Asp Ile Asp Asp 930 935 940 Ile Cys Pro Glu Asn Val Asp Ile Ser Glu Thr Asp Phe Arg Arg Phe 945 950 955 960 Page 13

Gln Met Ile Pro Leu Asp Pro Lys Gly Thr Ser Gln Asn Asp Pro Asn 965 970 975

Trp Val Val Arg His Gln Gly Lys Glu Leu Val Gln Thr Val Asn Cys 980 985 990

Asp Pro Gly Leu Ala Val Gly Tyr Asp Glu Phe Asn Ala Val Asp Phe 995 1000 1005

Ser Gly Thr Phe Phe Ile Asn Thr Glu Arg Asp Asp Tyr Ala 1010 1015 1020

Gly Phe Val Phe Gly Tyr Gln Ser Ser Ser Arg Phe Tyr Val Val 1025 1030 1035

Met Trp Lys Gln Val Thr Gln Ser Tyr Trp Asp Thr Asn Pro Thr 1040 1050

Arg Ala Gln Gly Tyr Ser Gly Leu Ser Val Lys Val Val Asn Ser 1055 1060 1065

Thr Thr Gly Pro Gly Glu His Leu Arg Asn Ala Leu Trp His Thr 1070 1075 1080

Gly Asn Thr Pro Gly Gln Val Arg Thr Leu Trp His Asp Pro Arg 1085 1090 1095

His Ile Gly Trp Lys Asp Phe Thr Ala Tyr Arg Trp Arg Leu Ser 1100 1105 1110

His Arg Pro Lys Thr Gly Phe Ile Arg Val Val Met Tyr Glu Gly 1115 1120 1125

Lys Lys Ile Met Ala Asp Ser Gly Pro Ile Tyr Asp Lys Thr Tyr 1130 1135 1140

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Gly Thr

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Gly Pro Asp Pro Ser Ser Pro Ala Phe Arg Ile Glu Asp Ala Asn Leu 35 40 45

Ile Pro Pro Val Pro Asp Asp Lys Phe Gln Asp Leu Val Asp Ala Val 50 60

Arg Ala Glu Lys Gly Phe Leu Leu Leu Ala Ser Leu Arg Gln Met Lys 65 70 75 80

Lys Thr Arg Gly Thr Leu Leu Ala Leu Glu Arg Lys Asp His Ser Gly $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Gln Val Phe Ser Val Val Ser Asn Gly Lys Ala Gly Thr Leu Asp Leu 100 105 110

Ser Leu Thr Val Gln Gly Lys Gln His Val Val Ser Val Glu Glu Ala 115 120 125

Leu Leu Ala Thr Gly Gln Trp Lys Ser Ile Thr Leu Phe Val Gln Glu 130 135 140

Asp Arg Ala Gln Leu Tyr Ile Asp Cys Glu Lys Met Glu Asn Ala Glu 145 150 155 160

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w1107-20005.prj 081203.ST25.txt
Leu Asp Val Pro Ile Gln Ser Val Phe Thr Arg Asp Leu Ala Ser Ile
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Val Leu Gln Asn Val Arg Phe Val Phe Gly Thr Thr Pro Glu Asp Ile
Leu Arg Asn Lys Gly Cys Ser Ser Ser Thr Ser Val Leu Leu Thr Leu 210 215 220
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20 25 30
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Glu Glu Trp Thr Val Asp Ser Cys Thr Glu Cys His Cys Gln Asn Ser 50 60
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Asn Arg Cys Glu Gly Ser Ser Val Gln Thr Arg Thr Cys His Ile Gln 35 40 45

Glu Cys Asp Lys Arg Phe Lys Gln Asp Gly Gly Trp Ser His Trp Ser 50 60

Pro Trp Ser Ser Cys Ser Val Thr Cys Gly Asp Gly Val Ile Thr Arg 65 70 75 80

Ile Arg Leu Cys Asn Ser Pro Ser Pro Gln Met Asn Gly Lys Pro Cys 85 90 95

Glu Gly Glu Ala Arg Glu Thr Lys Ala Cys Lys Lys Asp Ala Cys Pro 100 105 110

Ile Asn Gly Gly Trp Gly Pro Trp Ser Pro Trp Asp Ile Cys Ser Val 115 120 125

Thr Cys Gly Gly Val Gln Lys Arg Ser Arg Leu Cys Asn Asn Pro 130 135 140

Ala Pro Gln Phe Gly Gly Lys Asp Cys Val Gly Asp Val Thr Glu Asn 145 150 155 160

W1107-20005.prj 081203.ST25.txt Gln Ile Cys Asn Lys Gln Asp Cys Pro Ile 165 170

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<211> 143

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Gly Asn Gly Ile Gln Cys Thr Asp Val Asp Glu Cys Lys Glu Val Pro 35 40 45

Asp Ala Cys Phe Asn His Asn Gly Glu His Arg Cys Glu Asn Thr Asp 50 55 60

Pro Gly Tyr Asn Cys Leu Pro Cys Pro Pro Arg Phe Thr Gly Ser Gln 65 70 75 80

Pro Phe Gly Gln Gly Val Glu His Ala Thr Ala Asn Lys Gln Val Cys 85 90 95

Lys Pro Arg Asn Pro Cys Thr Asp Gly Thr His Asp Cys Asn Lys Asn 100 105 110

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Thrombospondin Region plus Region between the type 2 and the type 3 repeat

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Page 18

Asn Ala Thr Tyr His Cys Lys Lys

210> 46

211> 36

212> PRT

213> Artificial Sequence

220>

223> Thrombospondin Region

400> 46

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20

Pro Asp Asp Arg
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Asp Asp Val Gly Asp Arg Cys 20

- <210> 48
- <211> 36
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- <223> Thrombospondin Region
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Asn Gly Glu Gly Asp Ala Cys Ala Ala Asp Ile Asp Gly Asp Gly Ile 20 25 30

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Leu Asn Glu Arg
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Gly His Gln Asn Asn Leu
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Asp Gly Lys Gly Asp Ala Cys Asp His Asp Asp Asp Asp Gly Ile 20 25 30
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Pro Asp Asp Lys 35

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<211> 36

<212> PRT

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Pro Asp Ile Asp 35

<210> 53

<211> 227

<212> PRT

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<223> Thrombospondin Region plus C-terminal domain

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Phe Gln Met Ile Pro Leu Asp Pro Lys Gly Thr Ser Gln Asn Asp Pro 20 25 30

Asn Trp Val Val Arg His Gln Gly Lys Glu Leu Val Gln Thr Val Asn 35 40 45

Cys Asp Pro Gly Leu Ala Val Gly Tyr Asp Glu Phe Asn Ala Val Asp 50 60

Phe Ser Gly Thr Phe Phe Ile Asn Thr Glu Arg Asp Asp Asp Tyr Ala 65 70 75 80

Gly Phe Val Phe Gly Tyr Gln Ser Ser Ser Arg Phe Tyr Val Val Met 85 90 95

Trp Lys Gln Val Thr Gln Ser Tyr Trp Asp Thr Asn Pro Thr Arg Ala 100 105 110

Gln Gly Tyr Ser Gly Leu Ser Val Lys Val Val Asn Ser Thr Thr Gly 125

Pro Gly Glu His Leu Arg Asn Ala Leu Trp His Thr Gly Asn Thr Pro 130 135 140

Gly Gln Val Arg Thr Leu Trp His Asp Pro Arg His Ile Gly Trp Lys 145 150 155 160

Asp Phe Thr Ala Tyr Arg Trp Arg Leu Ser His Arg Pro Lys Thr Gly 165 170 175

Phe Ile Arg Val Val Met Tyr Glu Gly Lys Lys Ile Met Ala Asp Ser 180 185 190

Gly Pro Ile Tyr Asp Lys Thr Tyr Ala Gly Gly Arg Leu Gly Leu Phe 195 200 205

Val Phe Ser Gln Glu Met Val Phe Phe Ser Asp Leu Lys Tyr Glu Cys 210 220

Arg Asp Pro 225